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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,655	07/14/2000	Pedro Eugenio Cosma	RCA 89,477	6489

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EXAMINER

COLON, GERMAN

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 06/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/616,655

Applicant(s)

COSMA ET AL.

Examiner

German Colon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) ____.   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

On page 4, line 8, a reference to "short sides 9" and "long sides 7" is made. However, through the specification and drawings, 7 and 9 represent the short sides and long sides, respectively.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Regarding claim 1, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Adamski (US 3,986,072). Adamski discloses a color cathode-ray tube **2** comprising a glass front faceplate **6**, a screen of luminescent material **7** and a color selection mask **12**, with a rectangular frame (see Col. 1, lines 1-2 and 9-14) defined by a pair of opposed long sides **B** and **D**, and a pair of opposed short sides **A** and **C** as shown in Figure A. Adamski also discloses an edge in the form of a metal part **28** substantially parallel to the surface of the mask; the frame/mask assembly being held within the faceplate **6** by support means engaging pins **27** (see Figs. 3 and 4), said means incorporate a metal piece including a first portion **64** extending over one of the surface of the metal part and a second portion **60** extending in a direction substantially perpendicular to the surface of the mask.

Regarding claim 2, the support means are arranged at the corners of the frame (see Figs. 3 and 5).

6. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Lakshmanan et al. (US 5,982,085). Lakshmanan discloses a color cathode-ray tube (see Fig. 1) comprising a glass front faceplate **15**, a screen of luminescent materials **18**, a color-selection mask **22**, a frame **25** to which the mask is fixed, the frame being of a substantially rectangular

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shape defined by a pair of opposed long sides **33** and a pair of opposed short sides **36** (see Col. 4 lines 14-17), including an edge **26** in the form of a metal part substantially parallel to the surface of the mask, the frame/mask assembly being held within the faceplate by support means engaging pins **14**, said means incorporate a metal piece including a first portion **27** extending over one of the surfaces of said metal part and a second portion **40** extending in a direction substantially perpendicular to the surface of the mask.

Regarding claim 2, the support means are arranged at the corners of the frame (see Figs. 2 and 3).

Referring to claim 3, Lakshmanan is silent regarding the limitation of "the mask being held under tension between the long sides of the frame". It is considered to be inherent of the mask to have an applied tension along the sides of the frame. It is elementary that mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to distinguish over the prior art. Additionally, where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. *In re Swinehart*, 169 USPQ 226 (CCPA 1971). Thus, the functional limitation of "the mask being held under tension between the long sides of the frame" is taught by Lakshmanan under the principles of functional inherency.

Referring to claim 5, Lakshmanan discloses the preferred materials for the frame and support means, being the first one made of low carbon steel, and the second one of either nickel-

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plated low carbon steel or stainless steel (see Col. 4, lines 20-24). Therefore, the coefficients of thermal expansion are different.

Regarding claim 6, Lakshmanan discloses the support means made of stainless steel and the frame made of low carbon steel. It is known in the art that the coefficient of thermal expansion of stainless steel is higher than that of low carbon steel.

Regarding claim 7, Lakshmanan discloses the first portion of the metal piece of the support means welded to the surface of the metal part opposite the mask (see Fig. 3).

Referring claim 8, Lakshmanan discloses four support means each incorporating a metal piece (see Col. 4, lines 2-3 and Figs 2 and 3).

### *Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshmanan in view of Sakata et al. (US 5,214,349). Lakshmanan discloses a CRT comprising a glass front faceplate **15**, a screen of luminescent materials **18**, a color-selection mask **22**, a frame or rectangular shape **25**, an edge **26** in the form of a metal part, the frame/mask assembly being held by support means engaging pins **14**, which incorporate a metal piece including a first portion **27** extending over one of the surfaces of said metal part and a second portion **40** extending in a direction substantially perpendicular to the surface of the mask. Lakshmanan fails

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to disclose the limitation of "the mask being held under tension between the long sides of the frame".

However, in the same field of endeavor, Sakata discloses a CRT comprising a color selection mask **11**, a frame of a substantially rectangular shape (see Figs. 1, 3, 11 and 12) and the mask/frame assembly being held within the faceplate by support means engaging pins **26**. Sakata also discloses a frame/mask assembly where the tension is applied between the long sides of the frame (see Figs. 2, 8 and 10). This tension contributes to the prevention of the resonance of the filaments (mask) **11** with an external vibration, thereby producing a high-definition picture (see Col. 5, lines 61-66).

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to use Sakata's teaching to modify the frame/shadow assembly of Lakshmanan to apply a tension at the long opposite sides since Sakata teaches that this tension contributes to the prevention of the resonance of the mask with an external vibration, thereby producing a high-definition picture.

Regarding claim 4, Lakshmanan disclose the CRT of claim 1 but fails to disclose the limitation of "the sides including an edge in the form of a metal part substantially parallel to the surface of the mask being the short sides of the frame". However, in the same field of endeavor, Sakata teaches the equivalence of placing the support pins at the corners or arranging them toward the inner part of the panel in the vicinity of the corner portion as shown in Figs. 27 to 29 (see also Col. 9, lines 56-64). On Figure 29 the support pins are placed in the short sides of the faceplate. Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to use Sakata's teaching to modify the frame/shadow assembly of

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Lakshmanan since Sakata teaches that is equivalent to place the support pins at the corners or arranging them toward the inner part of the panel in the vicinity of the corner portion.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to German Colon whose telephone number is 703-305-5987. The examiner can normally be reached on Monday thru Friday, from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 703-305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
gc

June 10, 2002

  
**ASHOK PATEL**  
**PRIMARY EXAMINER**